Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379

December 15, 2000

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

10 CFR 50.73

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT (SQN) UNIT 2 - DOCKET NO. 50-328 - FACILITY OPERATING LICENSE DPR-79 - LICENSEE EVENT REPORT (LER) 50-328/2000004

The enclosed report provides details concerning an automatic reactor trip as a result of an actuation of the sudden pressure relays on the 'C' phase main transformer causing a turbine trip. This event is being reported, in accordance with 10 CFR 50.73(a)(2)(iv), as an event that resulted in an automatic actuation of engineered safety features including the reactor protection system.

Sincerely,

Richard T. Purcell

Enclosure
cc: See page 2

IE22

Enclosure
cc (Enclosure):
INPO Records Center
Institute of Nuclear Power Operations
700 Galleria Parkway
Atlanta, Georgia 30339-5957

Mr. R. W. Hernan, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852-2739

NRC Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy-Daisy, Tennessee 37379-3624

Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30323-3415

NRC FORM 366 (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Sequoyah Nuclear Plant (SQN) UNIT 2	05000328	1 OF 5

TITLE (4)

Reactor Trip Resulting from a Fault in a Main Transformer Caused by a Failed Bushing.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
									NA	05000
11	17	2000	2000	-- 004 --	00	12	15	2000	FACILITY NAME: NA	DOCKET NUMBER: 05000

		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
OPERATING MODE (9)	1		20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
POWER LEVEL (10)	053		20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
			20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
			20.2203(a)(2)(ii)		20.2203(a)(4)	X	50.73(a)(2)(iv)		OTHER
			20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
J. W. Proffitt, Licensing Engineer	(423) 843-6651

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
X	FK	IB	AS04	Y						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

Abstract (Limit to 1400 paces, i.e., approximately 15 single-spaced typewritten lines) (16)

On November 17, 2000, at 0842 Eastern standard time (EST), Unit 2 experienced an automatic reactor trip. The reactor trip was initiated by a turbine trip, which was caused by the actuation of the sudden pressure relays on the 'C' phase main transformer. The main control room operators took appropriate actions to stabilize the reactor in hot standby (Mode 3). An inspection of the main transformer revealed that a fault had occurred in the transformer. The electrical fault in the transformer was caused by a failure of a 24-kV bushing. A spare main transformer was placed in service for the faulted transformer, and the unit was returned to service.

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Sequoyah Nuclear Plant (SQN) Unit 2	05000328	2000 --	004 --	00	2 OF 5

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

I. PLANT CONDITION(S)

Unit 2 was in power operation at approximately 53 percent reactor power.

II. DESCRIPTION OF EVENT

A. Event:

On November 17, 2000, at 0842 Eastern standard time (EST), Unit 2 experienced an automatic reactor trip. The reactor trip was initiated by a turbine trip, which was caused by the actuation of the sudden pressure relays [EIIS Code RLY] on the 'C' phase main transformer [EIIS Code FK].

A inspection of the main transformer revealed that a fault had occurred in the transformer. The electrical fault was caused by a failure of a 24-kV bushing. The main control room operators took appropriate actions to stabilize the reactor in hot standby (Mode 3).

B. Inoperable Structures, Components, or Systems that Contributed to the Event:

None.

C. Dates and Approximate Times of Major Occurrences:

November 9, 2000	The 24-kV bushings were replaced on the 'C' phase main transformer and the post maintenance test was completed.
November 17, 2000, at 0842 EST	A generator lockout, with a turbine trip and a subsequent reactor trip occurred. The main control room operators took appropriate actions, in accordance with the emergency operating procedures, to stabilize the reactor in Mode 3.

D. Other Systems or Secondary Functions Affected:

None.

E. Method of Discovery:

The reactor and turbine trips were annunciated on the main control room panels.

F. Operator Actions:

Control room operators responded to the reactor and turbine trips as prescribed by emergency procedures. They promptly diagnosed the condition and took appropriate actions to stabilize and maintain the unit in a safe condition.

G. Safety System Responses:

The reactor protection systems, including feedwater isolation and auxiliary feedwater start, responded to the trip, as designed.

III. CAUSE OF THE EVENT

A. Immediate Cause:

The immediate cause of the turbine and reactor trips was the actuation of the sudden pressure relays on the phase 'C' main transformer.

B. Root Cause:

The root cause of the event was the failure of the bushings that were replaced during the refueling outage completed on November 14, 2000. The previous bushings had shown a negative trend on the power factor and were replaced. The replacement bushings were tested and determined to be acceptable before being placed in service.

C. Contributing Factor:

None.

IV. ANALYSIS OF THE EVENT

The plant safety systems responses during and after the unit trip were bounded by the responses described in the Final Safety Analysis Report.

V. ASSESSMENT OF SAFETY CONSEQUENCES

Based upon the above Analysis Of The Event, this condition did not adversely affect the health and safety of plant personnel or the general public.

VI. CORRECTIVE ACTIONS

A. Immediate Corrective Actions:

An inspection of the faulted main transformer was performed. Gas and oil samples from the transformer were taken. The inspection revealed that the 24-kV bushings had failed. An analysis from gas and oil samples confirmed acetylene and hydrogen concentrations consistent with a faulted transformer.

B. Corrective Actions to Prevent Recurrence:

A spare main transformer was placed in service for the faulted transformer.

VII. ADDITIONAL INFORMATION

A. Failed Components:

A main transformer 24-kV bushing [ASEA Brown Boveri (ABB)] Model No. GOH150 failed causing the transformer fault to occur. A failure analysis of the failed bushing is being performed.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

B. Previous LERs on Similar Events:

A review of previous reportable events for the past three years did not identify any previous events involving a transformer or bushing failure.

C. Additional Information:

None

D. Safety System Functional Failure:

This event did not result in a safety system functional failure in accordance with NEI 99-02.

VIII. COMMITMENTS

None.